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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/456,288	12/08/1999	STEVEN BENJAMIN DAVIS	213446.00011	6243

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FITZPATRICK CELLA HARPER & SCINTO  
30 ROCKEFELLER PLAZA  
NEW YORK, NY 10112

EXAMINER
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HOFFMAN, BRANDON S

ART UNIT	PAPER NUMBER
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2136

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/456,288	<b>Applicant(s)</b> DAVIS, STEVEN BENJAMIN	
	<b>Examiner</b> Brandon S Hoffman	<b>Art Unit</b> 2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 August 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Claims 1-58 are pending in this office action, claims 55-58 are newly presented.
2. Applicant argument's filed, August 23, 2004, have been fully considered but they are not persuasive.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa et al. (U.S. Patent No. 6,618,366) in view of Cornelius et al. (U.S. Patent No. 6,363,152).

Regarding claims 1 and 4, Furukawa et al. teaches a method/apparatus for a provider to verify a client's secret identifier, comprising the steps of:

- The client scrambles his/her predetermined secret identifier in a random way with random data (col. 79, lines 28-38);
- The scrambled data is transmitted to the provider (col. 79, lines 64-67); and
- The provider determines whether the client's secret identifier is present in the received scrambled data (col. 80, lines 49-54).

Furukawa et al. does not teach **to produce scrambled data comprising randomly interleaved (i) said secret identifier and (ii) said random data.**

Cornelius et al. teaches to produce scrambled data comprising randomly interleaved (i) said secret identifier and (ii) said random data (abstract and col. 2, lines 23-29 and col. 4, lines 17-31).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine randomly interleaving a secret identifier and random data, as taught by Cornelius et al., with the method/apparatus of Furukawa et al. It would have been obvious for such modifications because the interleaving process makes it impervious to attempts to directly decode the message as the message is dispersed throughout the entire message (see abstract of Cornelius et al.).

Regarding claims 2, 5, 15, and 44, the combination of Furukawa et al. in view of Cornelius et al. teaches a method wherein the provider rejects a transaction if the random data in the received scrambled data is substantially the same as random data received in a previous transaction corresponding to said client (see col. 81, lines 1-9 of Furukawa et al.).

Regarding claim 3, Furukawa et al. teaches a method for a provider to verify a client's secret identifier received in scrambled data which includes the secret identifier **randomly interleaved** with random data, comprising the steps of:

- Determining whether the client's secret identifier is present in the received scrambled data (col. 80, lines 49-54);
- Comparing the random data in the received scrambled data with previously received random data corresponding to said client (col. 81, lines 1-9); and
- Authorizing a transaction if the random data in the received scrambled data is substantially different from said previously received random data (col. 81, lines 1-9).

Furukawa et al. does not teach **which includes the secret identifier randomly interleaved with the random data.**

Cornelius et al. teaches which includes the secret identifier randomly interleaved with the random data (abstract and col. 2, lines 23-29 and col. 4, lines 17-31).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine randomly interleaving a secret identifier and random data, as taught by Cornelius et al., with the method of Furukawa et al. It would have been obvious for such modifications because the interleaving process makes it

impervious to attempts to directly decode the message as the message is dispersed throughout the entire message (see abstract of Cornelius et al.).

Regarding claims 6 and 34, Furukawa et al. teaches a process/apparatus for a consumer to submit secure verification information, comprising the steps of:

- Obtaining a secret identifier from a provider, said secret identifier being unique to said consumer (col. 79, lines 28-38); and
- Submitting the combined randomly **interleaved** secret identifier and plurality of randomly selected alphanumeric characters to the provider (col. 79, lines 64-67).

Furukawa et al. does not teach randomly **interleaving** the consumer's secret identifier with a plurality of randomly selected alphanumeric characters.

Cornelius et al. teaches randomly interleaving the consumer's secret identifier with a plurality of randomly selected alphanumeric characters (abstract and col. 2, lines 23-29 and col. 4, lines 17-31).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine randomly interleaving the consumer's secret identifier with a plurality of randomly selected alphanumeric characters, as taught by Cornelius et al., with the process/apparatus of Furukawa et al. It would have been obvious for such modifications because the interleaving process makes it impervious to attempts to

directly decode the message as the message is dispersed throughout the entire message (see abstract of Cornelius et al.).

Regarding claims 7-13 and 35-40, the combination of Furukawa et al. in view of Cornelius et al. teaches that the submitting step and/or the randomly **interleaving** step are performed on the Internet, a computer network, a building security system, a telephone system, a credit or debit card verification system, an ATM system, and/or a phone card system (see col. 1, lines 7-17 of Furukawa et al.).

Regarding claims 14, 41, and 42, the combination of Furukawa et al. in view of Cornelius et al. teaches that the random **interleaving** is performed manually **by a writing instrument** and/or by an automated process (see col. 79, lines 28-38 and 64-67 of Furukawa et al.).

Regarding claims 16 and 45, the combination of Furukawa et al. in view of Cornelius et al. teaches that the randomly **interleaving** step includes the step of changing an order of alphanumeric characters in the secret identifier (see col. 79, lines 42-45 of Furukawa et al.).

Regarding claims 17 and 46, Furukawa et al. teaches a method/apparatus of transacting a charge card purchase, comprising the steps of:

- Providing a user with a transaction form (this step is inherent in Furukawa);

- Receiving from the user a credit card number and a super identifier, the super identifier comprising (i) a secret identifier unique to the user and (ii) a plurality of randomly chosen alphanumeric characters (col. 79, lines 28-48);
- Comparing the received super identifier with a plurality of previously received super identifiers (col. 80, line 60 through col. 81, line 1); and
- Accepting the credit card transaction if the received super identifier is not substantially identical to previously received super identifiers (col. 81, lines 1-9).

Furukawa et al. does not teach **the super identifier comprising the randomly chosen alphanumeric characters randomly interleaved with the secret identifier.**

Cornelius et al. teaches the super identifier comprising the randomly chosen alphanumeric characters randomly interleaved with the secret identifier (abstract and col. 2, lines 23-29 and col. 4, lines 17-31).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine randomly interleaving a secret identifier and random data, as taught by Cornelius et al., with the method/apparatus of Furukawa et al. It would have been obvious for such modifications because the interleaving process makes it impervious to attempts to directly decode the message as the message is dispersed throughout the entire message (see abstract of Cornelius et al.).

Regarding claims 18-21, the combination of Furukawa et al. in view of Cornelius et al. teaches that the charge card purchase comprises a credit card purchase, a debit card purchase, a phone card purchase, a lottery ticket purchase (see col. 1, lines 7-20 of Furukawa et al.).

Regarding claims 22 and 47, the combination of Furukawa et al. in view of Cornelius et al. teaches that the secret identifier comprises a PIN (see col. 79, lines 28-30 of Furukawa et al.).

Regarding claims 23 and 48, the combination of Furukawa et al. in view of Cornelius et al. teaches that the randomly chosen alphanumeric characters are chosen by the user (see col. 79, lines 28-44 of Furukawa et al.).

Regarding claims 24 and 49, the combination of Furukawa et al. in view of Cornelius et al. teaches that the number of randomly chosen alphanumeric characters are the same as the number of characters in the secret identifier (see col. 79, lines 32-38 of Cornelius et al.).

Regarding claims 25-27 and 50-52, the combination of Furukawa et al. in view of Cornelius et al. teaches that the method is performed at a point of sale, at a provider server, or over the Internet (see col. 1, lines 1-7 of Furukawa et al.).

Regarding claims 28 and 53, the combination of Furukawa et al. in view of Cornelius et al. teaches that the secret identifier is **interleaved** by the user using the plurality of alphanumeric characters (see col. 79, lines 28-44 of Furukawa et al.).

Regarding claims 29 and 54, Furukawa et al. teaches a method/apparatus for carrying out a secure financial transaction, comprising:

- Receiving from a user (i) a request for a transaction and (ii) a super PIN (col. 79, lines 28-38); and
- Rejecting the request if the received super PIN is substantially similar to a previously received super PIN (col. 80, line 60 through col. 81, line 4).

Furukawa et al. does not teach **which comprises a PIN randomly interleaved with a plurality of alphanumeric characters randomly chosen by a user.**

Cornelius et al. teaches which comprises a PIN randomly interleaved with a plurality of alphanumeric characters randomly chosen by a user (abstract and col. 2, lines 23-29 and col. 4, lines 17-31).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine a PIN randomly interleaved with a plurality of alphanumeric characters randomly chosen by a user, as taught by Cornelius et al., with the method/apparatus of Furukawa et al. It would have been obvious for such

modifications because the interleaving process makes it impervious to attempts to directly decode the message as the message is dispersed throughout the entire message (see abstract of Cornelius et al.).

Regarding claims 30 and 31, the combination of Furukawa et al. in view of Cornelius et al. teaches that the rejection criteria is dependent on the Super PIN including all of the alphanumeric characters that comprise the user's secret identifier, or substantially all of the plurality of randomly selected alphanumeric characters from a previous transaction (see col. 80, line 51 through col. 81, line 11 of Furukawa et al.).

Regarding claims 32 and 33, the combination of Furukawa et al. in view of Cornelius et al. teaches that the previously used plurality of randomly selected alphanumeric characters are stored and that the rejection of the Super PIN validation triggers a supplementary validation activity (see col. 81, lines 1-11 of Furukawa et al.).

Regarding claim 43, the combination of Furukawa et al. in view of Cornelius et al. teaches that the automated process creates the Super PIN on behalf of the user (see col. 79, lines 28-38 of Furukawa et al.).

Regarding claims 55-58, the combination of Furukawa et al. in view of Cornelius et al. teaches wherein at least one of the secret identifier and the random data

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comprises a sequence of alphanumeric symbols (see col. 79, line 64 of Furukawa et al., a password is alphanumeric).

### ***Response to Arguments***

5. Applicant amends claims 1, 3, 4, 6, 8, 9, 11-17, 29, 34, 41, 42, 44-46, 53, and 54.

6. Applicant argues Furukawa et al. discloses an exclusive-or process for combining the plaintext with the random data. The instant application randomly interleaves an identifier with random data (page 18, last paragraph through page 19).

Regarding applicants argument, examiner agrees with applicant in the sense that the prior art does not interleave data. However, the argued feature of randomly interleaving identifiers with random data was not originally claimed, therefore a new ground of rejection has taken place.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon S Hoffman whose telephone number is 571-272-3863. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Brandon S Hoffman*

BH

*[Signature]*  
PATENT EXAMINER  
ELECTRONIC BUSINESS CENTER 21